



Migration guide Zebra® G-Series™ printers



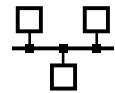
To facilitate easy migration from your current 28 Series desktop printers to the new G-Series desktop printers, this document outlines the key operational differences and considerations:

- Communication
- Hardware
- Firmware
- Media handling
- Power
- Ribbon handling

Communication

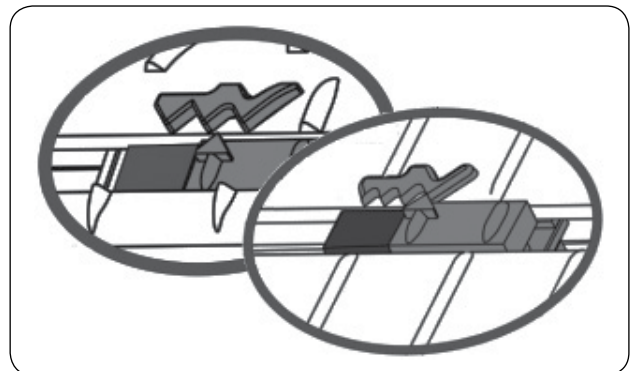
1. The G-Series printer's serial port is of a cross-over null-modem configuration, which is the same pin-out arrangement as on the ZPL-based 28-series printers. For serial port users of EPL-based 28-series printers, an appropriate serial cable or adaptor can be sourced. The part numbers are G105950-054 and 105850-026 respectively.
2. The GX420 and GX430 printers' parallel port is of a DB-25 configuration. A switchbox-style parallel cable can be used. The part number is 105850-025.
3. Users of the external 10Base-T print server device on their 28-series printers are recommended to migrate to a G-Series printer with internal 10/100 Ethernet option.
4. To aid the setup of the G-Series printers, representative icons appear above the printer's interface ports and power supply.

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Hardware

1. Unlike the 28-series thermal-transfer printers, the thermal-transfer G-Series printers do not have a lid-release catch.
2. The operation of the dispenser option's peel sensor is controlled via command code (as opposed to via a switch on the 28-series printers). Legacy users can control the sensor via the appropriate EPL OP command or ZPL ^MMP command. Newer users might wish to adopt a SGD "media.printmode" method of control.
3. The GX420 and GX430 printers have a moveable sensor option available to them. This full-width reflective sensor can be moved across the whole width for use in detecting black-mark registration marks. The multi-position transmissive sensor caters for centralised registration gaps, notches or die-cut holes and for the 28-series printers' right offset position.
4. The peaked area on the lower media pathway corresponds to an upper array of sensors. The direct-thermal printers have a three-peak design, whereas the thermal-transfer printers have a four-peak design. The range of transmissive-sensor movement is the same on both the direct-thermal and thermal-transfer printers.



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Firmware

1. One of the features of the G-Series printer is the dual residency of its command languages: the coexistence of both EPL™ and ZPL® command sets and the printer's ability to process them are very different from the individual command-specific 28-series printers. Whilst the G-Series printers will seamlessly handle different language formats or scripts sent in succession, individual constructs must be maintained; EPL and ZPL scripts cannot be merged.
2. The GX420 and GX430 printers have full E3™ printhead energy control in line with the Zebra mid-range and high-end printers. This individual dot management provides improved print quality over equivalent 28-series printers, so should you have an application or output that requires a crisper, defined image, or should you be looking for a printer with output comparable to your larger Zebra printers, the GX™ printer would be the choice.
3. Increased print speed and print quality have been achieved on the G-Series printers and so has improved printer management. Printhead control is one example of this: the printer will warn of the printhead being too hot via a solid-amber LED. This is an additional feature that users of the EPL-based 28-series printers (the LP/TLP 2844 or TLP 3842™), would not have encountered previously. This feature cannot be disabled.
4. The Feed-button modes of G-Series printers follow those of the ZPL-based 28-series: the LP/TLP 2844-Z and TLP 3844-Z™ printers. With their various flash sequences, they provide more control over the printer's setup and continued use. This is a feature unavailable to EPL-based 28-series printers and avoids any unwanted entries into a diagnostic mode or the Line Mode of operation. Full details of the printer's Feed-button modes can be found in the relevant user guide.
5. The default configuration report that can be output via a one-flash sequence is that of a ZPL-based printer. If the printer is equipped with an internal 10/100 Ethernet option, a subsequent configuration report detailing the print server setup will be output. Should a user be more familiar with the configuration report of an EPL-based 28-series printer and require this format, it can be output via the appropriate EPL U-command.
6. The two-flash sequence on the G-Series printers will only perform a manual calibration routine, which is a slightly different operation from that of the ZPL-based 28-series printers. Should you require the media histogram output, this is available following a new seven-flash sequence.
7. The command set has been expanded and part of this feature increase is that of the Set, Get, Do (SGD) constructs. This control includes media handling, odometer functionality and wired and wireless setup, and provides a common method of control outside that of any similar EPL or ZPL feature-handling. Full details of the SGD commands can be found in the relevant programming guide.
8. The G-Series printers support Unicode™. The printers are pre-loaded with the Swiss 721 font and this can be accessed under ZPL to provide a multi-character global printing solution.
9. The default plug-and-play string of the printer will see a ZPL driver installed. However, if a specific choice of EPL driver is required, this can be set up via the driver install routine on the printer's Accessories CD.
10. Why would this be required? A feature within the Zebra Universal Driver (ZUD) is its ability to select a TrueType™ or OpenType® font for conversion and download to the printer. This font data might be referenced at a future point via the appropriate command code. However, ZPL soft fonts use upper-case reference letters, whereas EPL soft fonts use lower-case letters. Therefore, if you intend to refer to converted font data via command code, ensure that the code-specific ZUD is installed and used for the actual conversion process.
11. Converted soft fonts are stored under E: memory. The syntax is fo.FNT, where "f" is the font identifier and "o" is the orientation. A directory listing of E: might show something similar to AH.FNT, where the font identifier is A and the orientation is H (for "horizontal"). The other choice of orientation is V (for "vertical").
12. Real-time-clock handling under EPL provides a time or date stamp of when the print job commenced. For this information to update throughout the print run, you should use ZPL command code and the ^SL command.

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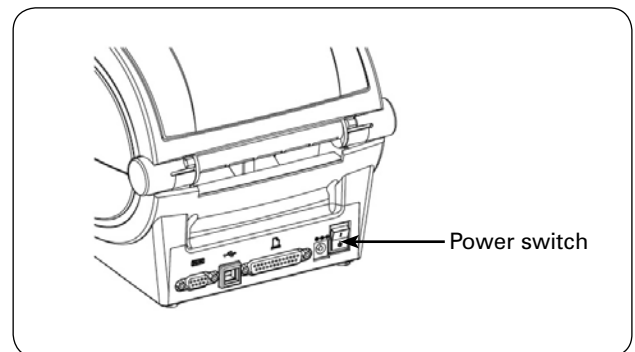
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Media handling

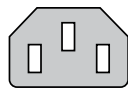
1. The default media action of the G-Series printers resembles that of an EPL-based 28-series printer: the printer will not feed automatically at power-on, only following a lid closure. If you are changing between two different styles of media, you should carry out a manual calibration. This can be achieved via the printer's two-flash Feed-button sequence. The printer can be changed to feed at both power-on or lid closure using the ZPL ^MF command.
2. The G-Series printers are easier to load than 28-series printers because they do not have separate roll holders and guides. They are one integrated element and support 12mm/0.5" cores.
3. If using fan-fold media or an external media roll, the centralised thumb wheel can be used to keep roll holders open (as opposed to using the older screw-down method). Rotate the thumb wheel inwards on the direct-thermal printers to keep the guides apart. For thermal-transfer printer guides, rotate the thumb wheel outwards to keep them apart.
4. For GX420 or GX430 printers equipped with a cutter option, its default operation is to double-cycle following every 25th cut. This automatic dual-cut is intended as a cleaning action to maintain the life of the cutter. This action can be disabled via the appropriate SGD command "cutter.clean_cutter", but it is not recommended.
5. Providing the relevant option is installed, common media handling can be controlled via the SGD constructs. The "media.printmode" command can be used to manage G-Series printers in tear, peel or cutter modes of operation.

Power

1. The power supplies for the thermal-transfer G-Series printers (the GK420t, GX420t and GX430t) are located in the upper packaging. This is the same as 28-series printers. However, direct-thermal G-Series printers (the GK420d™ and GX420d™) have their power supplies located in the lower packaging beneath the printer itself.
2. The G-Series printers' power supplies are of a 24-volt DC design, as opposed to the 28-series printers' 20-volt DC design. Additionally, the power cable's attachment to the supply itself – the line socket – is of a C13 "kettle" style, which is different from the C5 "clover-leaf" style of the 28-series. Power supplies and power cables are specific to printer models. G-Series printers cannot use 28-series printers' power supplies and vice versa.
3. When looking at the rear of the G-Series printers, the location of the power on/off switch is on the right. This is different from that of the 28-series.



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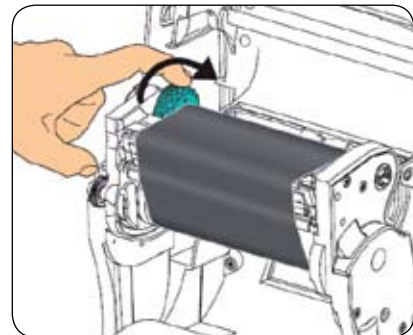
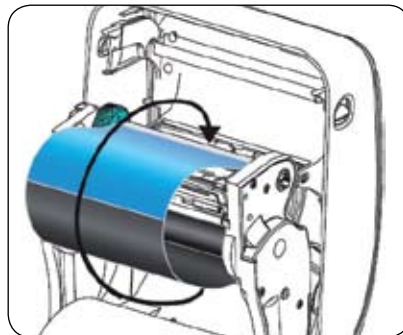
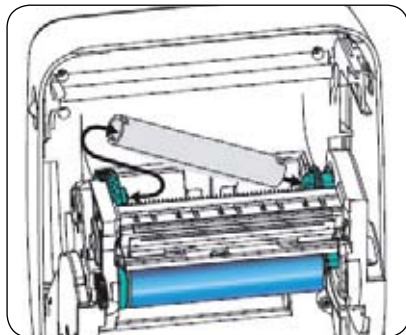
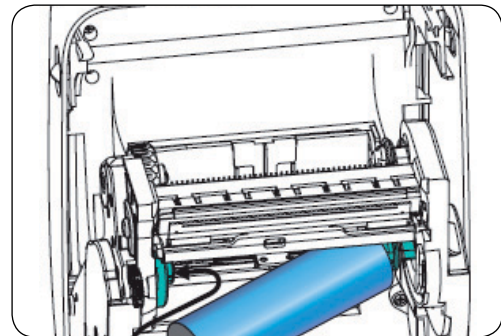
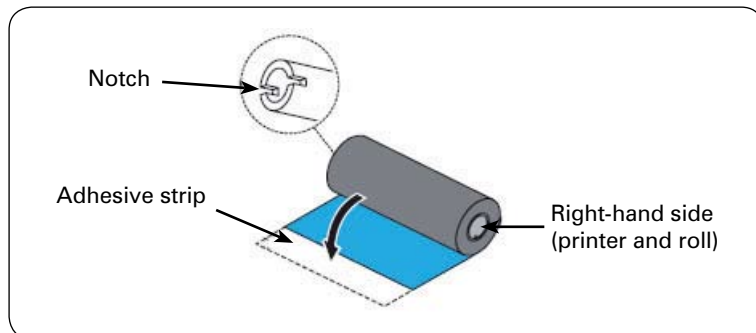
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Ribbon handling

1. The G-Series ribbon-sensing mechanism requires the ribbon to have a reflective trailer. As such, the uni-ribbon format should be used for GK420t™, GX420t™ and GX430t™ printers whenever they are being used in the thermal-transfer mode of operation.
2. The inverted ribbon mechanism of the G-Series printers is different from that of the thermal-transfer 28-series, but it enables a far easier and quicker process. Refer to the ribbon-loading instructions in the relevant printer's user guide for full instructions.



Part number	Width (millimetres)	Length (metres)	Description	Rolls per box
05319BK06407	64	74	5319 Wax	12
05319BK08407	84	74	5319 Wax	12
05319BK11007	110	74	5319 Wax	12
05586BK06407	64	74	5586 Wax/Resin	12
05586BK08407	84	74	5586 Wax/Resin	12
05586BK11007	110	74	5586 Wax/Resin	12
05095BK06407	64	74	5095 Resin	12
05095BK08407	84	74	5095 Resin	12
05095BK11007	110	74	5095 Resin	12

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